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COLLEGE OF HEALTH SCIENCES

PROCESS EVALUATION OF MATERNAL, CHILD HEALTH AND NUTRITION IMPROVEMENT PROJECT (MCHNP) IN THE EASTERN REGION, GHANA.

BY
SOLOMON BOAMAH AMPONSAH
(10745141)

THIS DISSERTATION IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE AWARD OF MASTER OF SCIENCE PUBLIC HEALTH, MONITORING AND EVALUATION DEGREE.

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DECLARATION

I Solomon Boamah Amponsah declare that this work is the result of my own investigation under the supervision of Professor Moses K.S. Aikins. Literatures from studies by other people have been duly recognized. For another degree, the whole or part of this work has not been presented to any other institution.

…… ……...

Solomon Amponsah Boamah
(Principal Investigator)

Date ……..

Prof. Moses Aikins
(Supervisor)

Date ……

DEDICATION

This piece is dedicated to the memory of my father, the late John Kingsley Boamah.

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To God be the glory; I give all praise to Him for making it possible that I am part of the first cohort of MSc. Public Health Monitoring and Evaluation programme in the University of Ghana, Legon.

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ABSTRACT

Background

In the past decade though Ghana achieved some improvements in Millennium Development Goals (MDGs) implementation, challenges of inequalities, geographical disparities and sustaining the progress still remain, (MOH 2011). The 2017 Eastern Regional Health Directorate's annual report mentioned decreasing trends in Reproductive and Child Health indicators leading to poor maternal and child health outcomes in the Region, (GHS 2017). Maternal and Child Health Nutrition Improvement Project (MCHNP) is a World Bank funded programme aimed at improving access and utilization of community-based maternal, child health and nutrition outcomes.

Objectives

This study aimed at determining the implementation status of Maternal Child Health and Nutrition Improvement Project in the Eastern Region by evaluating processes involved in the MCHNP project.

Methods

The study was cross-sectional with quantitative approach. Ten (10) CHPS facilities in five (5) districts were involved. MCHNP Coordinators and Community Health Officers were interviewed using structured questionnaire. MCHNP implementation reports at the facility level were reviewed with a checklist. Tertile statistics was used to describe the status of MCHNP implementation in the Eastern Region.

Conclusion

The evidence gathered by this study indicates that Maternal, Child health and Nutrition activities by CHPS facilities are implemented in accordance with the MCHNP implementation guidelines and shows very good implementation status for MCHNP service delivery. However, the status of governance is generally rated as partially completed due to inadequate alignment with MCHNP governance processes by majority of the facilities. The main implementation challenges relates to funding restrictions and delays in disbursements.

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LIST OF ABBREVIATIONS

CDC	Centre for Disease Control
CHO	Community Health Officers
CHWs	Community Health Workers
CHPS	Community-based Health Planning and Services
DALY	Disability Life Adjusted Year
DHMT	District Health Management Team
ECNHA	Essential Community Nutrition and Health Actions
FP	Family Planning
GHC	Ghana Cedis
GDHS	Ghana Demographic Health Survey
GHS	Ghana Health Service
GMHS	Ghana Maternal Health Survey
HIC	High-Income Country
HIV	Human Immune-Deficiency Virus
ITN	Insecticide Treated Net
LB	Live Birth
LMIC	Low and Middle-Income Country
MCHNP	Maternal and Child Health Nutrition Improvement Project
MMEIG	Maternal Mortality Estimation Inter-agency Group
MMR	Maternal Mortality Rate
MDGs	Millennium Development Goals
MOH	Ministry Of Health
NHIS	National Health Insurance Scheme
NGO	Non-Governmental Organization
PI	Principal Investigator
RDHS	Regional Director of Health Service
TFR	Total Fertility Rate

TBA	Traditional Birth Attendant
UN	United Nation
UNDP	United Nations Development Plan
UNICEF	United Nations International Children's Emergency Fund
USAID	United States Agency for International Development
WHO	World health Organization
IYCF	Infant and Young Child feeding

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CHAPTER ONE

INTRODUCTION

1.1 Background

The United Nations reported that from 1990 to 2015, global deaths in children below five years reduced by 53% (UN, 2015). Noteworthy headway has been made in the past decade in the areas of child and maternal health. Despite the progress achieved globally, deaths in developing countries remain on the high side. Over 30,000 women in 2015 lost their lives due to difficulties from pregnancy and childbirth (WHO, 2015). Worldwide estimation indicates that close to six million children below five years lose their lives yearly, with close to three million dying before first 30 days of life (Lassi et al. 2016). Nearly 99% of all newborn fatalities happen in developing nations with low or middle income status (Bayer 2001). Sub-Saharan Africa records the peak of Maternal death figures in Africa (Hogan et al. 2010), the rates of deaths among the poor are twice those of the non-poor, and they are greater among countryside populations and mothers with low educational levels (PLoS Medicine Editors 2010). Children in LMIC's are trice more probable to die before their 5th birthday than children living in HICs (Black et al. 2013). Malnutrition is a fundamental cause of 3.5 million deaths in women and children each year (Black et al. 2013); Nearly 35% of the disease burden in children below 5 years and 11% of the total worldwide disease load are due to wasting stunting and micronutrient deficiencies. (Lozano et al. 2011).

Ghana has progressed significantly in interventions to reduce maternal and child mortality (UNDP, 2015). Particular priority has been given to the improvement in Family Planning (FP) services and widening access to expert attendance during delivery, emergency obstetric newborn care including infant and young child nutrition services (UNDP, 2010). Ghana has made balanced advancement

in the immediate past decades in maternal and child health outcomes. There has been noticeably declined deaths in children to reach 60 deaths per 1,000 live births in 2011, (GDHS, 2015); deaths related to delivery almost split to reach 380 deaths per 100,000 live births, (USAID, 2015); and the total fertility rate (TFR) declined from 6.4 children per woman in 1988 to 4.2 children per woman in 2014. (USAID, 2015).

The considerable progress made by Ghana in reducing maternal mortality has largely been supported by a number of initiatives by the UN and other partners. Such initiatives included framework on the MDGs, safe motherhood programmes, vitamin A supplementation trials and others (UNDP, 2015). The Ministry of Health in 2011 acknowledged that though Ghana has made some progress in the past on the MDGs implementation, challenges of inequalities, geographical disparities and sustaining the progress still remain, (MOH 2011).

Despite the availability of numerous health facilities in one of Ghana's regions, Eastern, outcomes of health care services for women and children are below set targets. The Region from its 2017 annual report mentioned high maternal deaths (180/100,000LB), high still births (1.6%), high HIV prevalence among pregnant women (2.6%), low uptake of family planning (27.8%) and decreasing trend of most reproductive health indicators as evidences in support of the performance below set targets (GHS 2017). The unenviable heights of maternal deaths will need a dedicated approach to increase contact to under privileged mothers to a broad bundle of highly effective interventions. This is necessary because high maternal mortality has largely been as a result of inadequate contact and most appropriately vital maternal health services (MSH-GTR, 2017).

Suitably blended interventions are able to meaningfully decrease the load of diseases and deaths in women and children. Nevertheless, those who need such initiatives most often do not receive (Zohra et al, 2016). A unified method that grips community-based care as a crucial element has

the potential to markedly improve the health of the target at the community level. Wellbeing of women and children are essentially related in that when mothers are malnourished, ill or are poorly cared for, their newborns are at greater risk of morbidities and mortalities. When a mother loses her life in the course of delivery, the risk of the kid not surviving is very high (Ronsmans et al. 2010).

The 2014 World Bank official appraisal document of the International Development Association Project emphasizes that the Maternal Child Health Nutrition Project is an upgrade of efforts to institute a nationwide Communal-centered health design and services program to mitigate challenges to health care. The project provides basic preparation procedure which facilitates a communication between chosen community members and health providers; again the project engages community influential persons who are credible and can relay messages about health pursuing conduct. The project equips health managers at the district level to ensure that through structured training, CHOs have the required ability to perform a set of result yielding activities and are abreast with issues at the periphery from the indigenes in order to dialogue professionally on delicate matters. Home-based care services would be provided by the CHOs to cover wide catchment areas. Volunteers would mobilize communities, help in growth promotion sessions, counseling and keeping registers up to date (GHS, 2014).

The objective as stated by the appraisal document stands to advance health and nutrition opportunities based in communities for women's health and that of their children in general. Health service delivery strategies and communications channels based in the community will be adapted to increase high yielding approaches to addressing hurdles to access. The motive is to inform, sensitize and motivate guardians, leaders in the community and other key players. The focus of the project is on strengthening mechanisms for the delivery of unrestricted health and nourishment

services; increasing synchronization and teamwork among different sectors and enhancing proprietorship and responsibility of efforts by stakeholders towards enhanced maternal and child health indicators. The strategy reinforces the Community-based Health Planning and Service (CHPS) provision platform and improving on its achievements.

The project target within participating communities women who are in their fertile age with special attention on pregnant women and under 2 children to take complete merits of the opportunity for ensuring complete development of the child. Children below five years are not left out from the advantages of the project as it comes with enhanced nutrition and public health programmes in the areas of salt iodization monitoring of growth. (World Bank, 2014).

The project provides support to make stronger use of key initiatives, eliminate obstacles to health care, improve responsibility, and support facility capabilities in order to achieve the anticipated improvements. MCHNP seeks to achieve this goal by a targeted approach to under privileged groups in rural communities (World Bank, 2014).

1.2 Statement of the Problem

Despite efforts and support by government and international bodies, Maternal Mortality Ratio for Ghana is still on the high side with 310 deaths in every 100,000 successful deliveries (GMHS, 2017). Neonatal Maternal Rate makes up 71% of infant mortality and 48% of under-five mortality (GDHS, 2014). Ghana recorded Infant Mortality Rate of 41/1,000LB, Deaths in children below five years increased over 3% from 2013 to 2014. (GDHS-2014). The fraction of underfed children for all age groups increased in all regions with the exception of the Upper West Region (GDHS, 2014).

In spite of the several strategies put in place to prevent maternal mortality, Eastern Region still recorded 108 maternal deaths in 2017, implying that approximately nine(9) women and girls die from pregnancy related causes and childbirth in the region every month (GHS, 2017). Eastern region recorded Infant Mortality rate of 43/1,000lB and under 5 mortality of 68/1000LB in the GDHS-2014, these were higher than the national rates in the same survey.

MCHNP has the aim to advance use of child health and nutrition services by women of reproductive age at the periphery.

Publications by Gertler et al. (2011) and Bonfrer et al. (2013) provide evidence of the contributions of MCHNP to maternal and child health improvements. Processes ensuring that MCHNP achieves the intended results are equally important as the results themselves. In the absence of methodical evaluation, implementers are likely not to know whether the Project scheme is being successful. A cautious evaluation of MCHNP during implementation will advocate for ways to improve or expand processes and also point out strengths and flaws. There is also the need to identify barriers in the execution of the Project in the Region. This study was therefore meant to provide information on the implementation status of MCHNP and possible barriers affecting its implementation in the Eastern Region.

1.3 The Conceptual Framework

The conceptual framework in Figure1 shows the processes that define the outcome of the MCHNP implementation status according to the MCHNP implementation guidelines. The four areas in focus that have these processes are Governance, Maternal Health, Child Health and Nutrition. There are defined activities that are implemented under each area in focus also outlined in the framework. For Governance there are six (6) activities; Maternal Health has five (5); Child Health has four (4) and Nutrition three (3). The implementation of activities barring any barrier or

challenge is most likely to determine the implementation status of MCHNP as indicated in figure 1. Compliance or non-compliance to the MCHNP implementation guidelines on governance and planned activities on maternal, child health and nutrition listed in the framework has a direct influence on the implementation status of the Project.

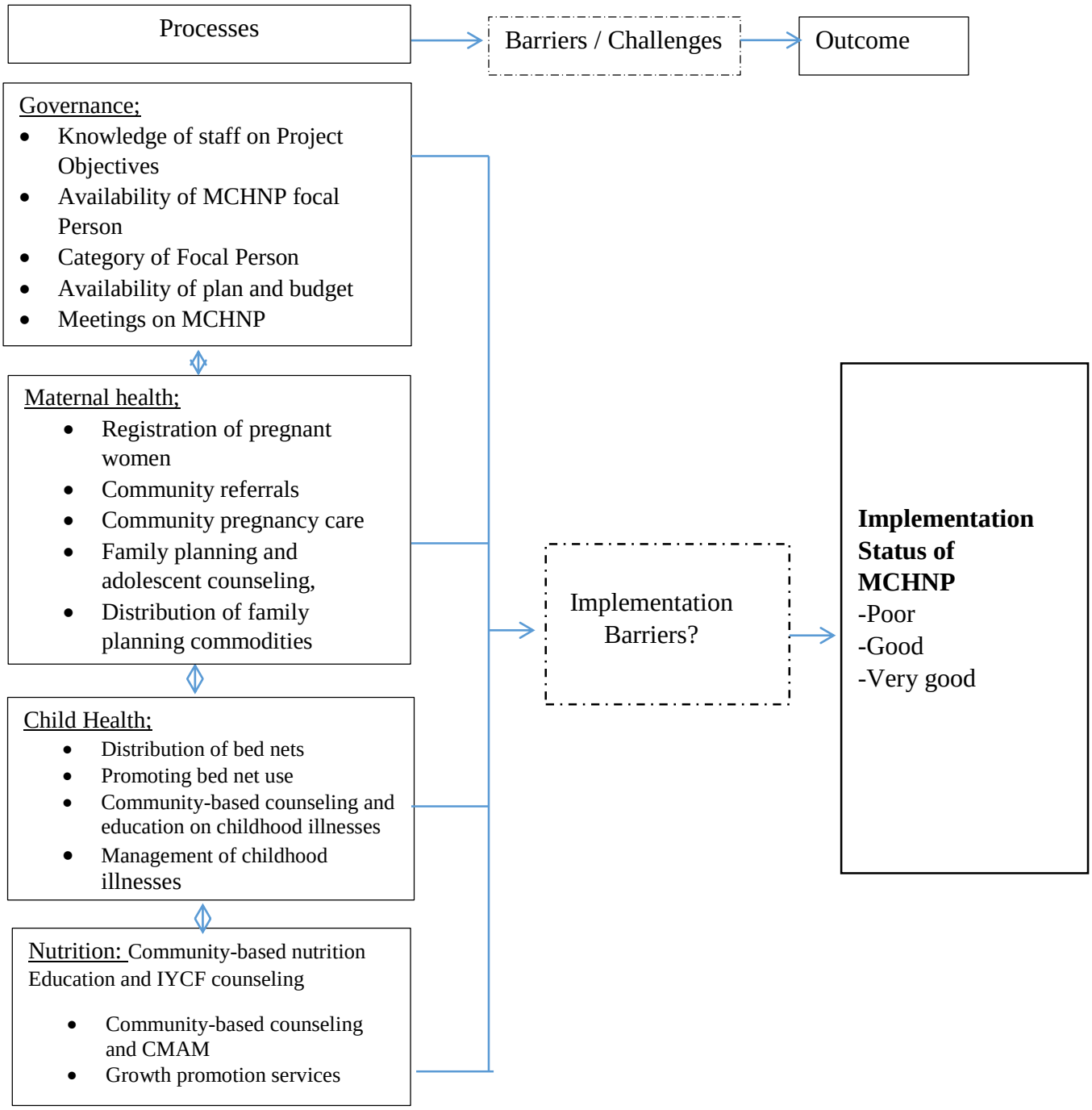

Figure 1. Conceptual Framework for determining implementation status of MCHNP

1.4 Justification

This study was necessary to provide firsthand information on the implementation status of MCHNP following the scale up of the project in the Eastern region. Burundi and Rwanda showed evidences of MCHNP contribution to maternal, child health and nutrition outcomes (Bonfire et al. 2013; Gertler et al. 2011). Process evaluation was therefore necessary to provide an observational assessment and analyses of the MCHNP processes to document how well the MCHNP package is being provided. The investigation into the processes of MCHNP implementation was aimed at increasing knowledge on how to maximize performance to improve on MCHNP outcomes. This study did not only seek to provide progress information on the project but also examined challenges and barriers affecting the project implementation. The study provides evidence which when considered can help improve processes of interventions at the community level seeking to incorporate their strategies into routine public health practice especially in the Eastern Region where the region still battles with the reduction in maternal deaths and under-five mortalities.

1.5 Research Questions

The following questions were addressed by the study**.**

1. What is the status of governance processes of MCHNP implementation in the Eastern region?
2. What is the status of maternal health processes of MCHNP implementation in the Eastern Region?
3. What is the status of child health processes of MCHNP implementation in the Eastern Region?
4. What is the status of Nutrition processes of MCHNP implementation in the Eastern Region?
5. What are the barriers to the implementation of MCHNP in the Eastern Region?

1.6 Study Objectives

1.6.1 General Objective

The general objective of the study was to determine the implementation process of Maternal, Child Health and Nutrition Improvement Project in the Eastern Region.

Specific Objectives

1. To assess the status of governance processes of MCHNP implementation in the Eastern Region.
2. To ascertain the status of maternal health processes of MCHNP implementation in the Eastern Region.
3. To determine the status of child health processes of MCHNP implementation the Eastern Region
4. To assess the status of nutrition processes of MCHNP implementation in the Eastern Region.
5. To determine barriers to the implementation of MCHNP in the Eastern Region.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides an overview of previous studies on community-based maternal and child health interventions. Evidences on global and regional issues on health related to the study have also been shown. Proofs on implementation and the impact of Maternal Child Health Nutrition Project (MCHNP) by other researchers have been provided. The need for process evaluation of projects in a community-based intervention has also been presented in this Chapter.

2.2 Maternal and Child health

Over 830 women die from avertable reasons connected to pregnancy and childbirth of which 99% of befall developing countries; maternal mortality is greater in women living in rural areas and among poorer communities (WHO, 2018).

Every year close to 10 million women who stay alive after childbirth experience unpleasant conditions related to child bearing in the areas of infections, diseases and incapacities, often with lasting consequences. It is established that 80% of lives lost could be obviated if women had the needed and fundamental health care services (UNICEF, 2009). The major numbers and highest rates of maternal, neonatal, and child deaths are in countries of sub-Saharan Africa and South Asia (Liu et al. 2016). Poor Nutrition in women and children remain widespread and detrimental in low-income and middle-income countries and has been documented as the fundamental cause of three million deaths, 35% of the disease load in children younger than 5 years and 11% of total global DALYs (Black et al, 2008).

In Ghana mortalities in children declined sizeably to 60 deaths per 1,000 live births in 2011 (GDHS, 2014); maternal mortality recorded 380 deaths per 100,000 live births (MMEIG 2014).

Notwithstanding this advancement, enormous disproportions remain, for instance, while over 90% of women in urban areas deliver in health facilities, 41% deliver at home. Additionally, just about 80% of children from the lowest wealth quintile suffer from some form of anaemia due to iron-deficiency compare to 47% in urban areas (DHS, 2014). Attempting to address this issue, one cannot overemphasize the lapses in execution of processes of interventions helping to reduce these disparities. Lale et al. (2009) published that it is vital to comprehend the practices of obstetric care in order to address any identified weakness within the system and take corrective action.

2.3 Community-Based Interventions.

Solving general lack of access to health and disproportion in the community would affect considerable drops in issues with nutrition and should be a global priority, additionally major declines in under nutrition can also be made through well designed health interventions. (UKaid, 2012). This affirms the need for the implementation of community-based interventions such as MCHNP which ensures that nutrition services for children and pregnant women are provided at the community and outreach levels.

A study by Guta et al (2018) classified community-based care into community as setting, community as target, community as resource and community as an agent. With community as a setting the community is seen as a setting for interventions and the benefits that come along with it. Community-based care help skilled birth attendants to detect hitches early, making sure that mothers and babies receive appropriate attention within their community. When the community is seen as a target, then changes can be initiated positively to ensure that the intended purpose is achieved. As a resource and agent the community can provide information regarding health interventions available in their communities. The MCHNP project is a community-based intervention which ensures full community participation by engaging stakeholders and opinion

leaders to discuss and find local solutions to issues emanating from a specific situation in the community.

Zohra et al. (2013) published that packages of interventions in communities have what it takes to lessen loss of lives in women and babies. Lassi et al. (2013) saw that there is the greater chance of improving breastfeeding practices, iron and folic acid supplementation and referrals of pregnancy related complications with right community interventions. Systematic review of community-based intervention showed a reduction of 25% in neonatal mortality, pregnancy-related complication referrals to health facilities, increased by 40 %, breastfeeding within hours after delivery appreciated over 90% and request for health care by mothers for their babies increased by 45% resulting to drops in diseases of mother and baby (Lassi, Haider, and Bhutta 2010). Studies show physical availability of health care services in developing countries as vital in utilization of these services (Bari & Akhter, 2003). Important variable related with patronage of maternal health services and services for children is the physical accessibility of the services (Bari & Akhter, 2003).

2.4 Community-based Maternal Health Interventions.

Maternal and newborn deaths that are escapable can be controlled through simple evidence-based interventions, such as the use of community health workers (CHWs), an intervention that has been tried in many settings (UNICEF, 2014). In LMICs there is gradually more engagement of communities in healthcare as this is critical in growing universal access to healthcare provision (World Bank 2012).

Based on lessons learned over the past two decades on the implementation and evaluation of many interventions and programs, it is vital to endow communities and add them into the primary health care systems. Visits to homes, mobilization in the community, interventions in communities and

continuum care models can serve as conduits between the two levels to improve maternal, newborn, and child health care outcomes (Zohra et al, 2013). The range of care is based on the opinion that health and well-being of women, newborns, and children are integrally linked and should be managed in an integrated way. Wardlaw and Maine (1999) in their publication on process indicators for maternal mortality programmes stated that process indicators provide information on the actions necessary for situation improvement, they emphasized that measuring such processes are less expensive and also reflect immediate changes compared with impact indicators that more complex and expensive to measure. Process evaluation is critical in management purposes to help reinforce and improve the effectiveness of actions and interventions meant at reducing maternal mortality and morbidity. (CLAP/WR, 2012).

2.5 Community-based Child Health Interventions

Fruitful blend of official health care systems with community-based attempts has weighty effects on minimizing child mortality and improving maternal health. Home visits by CHWs when conducted in combination with community mobilization activities was seen to be associated with 38 % reduction in neonatal mortality and 24 % reduction in stillbirth rate in resource-limited settings (Gogia and Sachdev 2010).

The Development Assistance Committee (DAC) a working party on Aid Evaluation published that; determining impact should not be the only emphasis of evaluations on programs that are providing established interventions, process and outcome information are needed to better understand how interventions are being provided to those in need. Process evaluations determine the internal changing aspects of implementers, their policy mechanisms, their service delivery instruments, and their management practices (DAC, 2002). Moore et al (2014) published that process evaluation explicitly determine what the program does and also the intended beneficiaries.

The likely or achieved short and medium–term effects of an intervention's outputs such as behavior are also measured by outcome evaluations change (DAC, 2002).

2.6 Community-based Nutrition Interventions

Extremely underfed or wasted children are about 8%. The situation is a life-threatening one that emanates from an intense reduction in diet or repeated infections and not a pronounced improvement from 10% in 1990 (UNICEF, 2012).This is the fundamental underlying cause of close to four (4) million of maternal and child deaths each year (Black and others 2008). It also accounts for roughly 35% of the disease problem in children below five years and more than 10% of the overall disease burden in the world and also responsible for stunting, wasting, and micronutrient deficiencies. The normal measure of the human burden of deaths and disease DALY's is accounted for as 11% in maternal and child malnutrition globally (Butted al. 2008).

Community surveillance on children's growth enables the timely recognitions of seriously underfed young children and transfer for further investigation and management. An evaluation by World Bank and UNICEF showed that such programs indeed contribute to improved feeding and child care, and thereby to lower rates of stunting. Compared to the long-term trend decline in stunting of about 1.3 percentage points a year without the program, the evaluation showed that the program is associated with over 100 percentage point decline (Getachew , 2011). It was also found by the study that the program absolutely impacted IYCF, in the areas of exclusive breastfeeding and nutritive range for older children, thereby mitigating malnutrition related conditions (Getachew 2011).

2.7 Barriers to community-based interventions

A study in Uganda revealed that community health workers experience numerous challenges in the course of their duties. Among the challenges were means of transport to duty, lack of protective clothing, workload and many others (Namazzi et.al. 2017).

Haver et al. (2015) conducted a study in four (4) countries: Rwanda, Nepal, Nigeria and Afghanistan on the experiences in engaging service staff to provide maternal and newborn services. According to the publication, the most critical challenge has to do with the crisis in human resource and this results in the scarcity of the number of health providers and the inappropriate distribution of the existing providers. This can again result in the insufficient capacity of the few providers due to inadequate training and education. Some of the advantages from community-based services are that the CHWs have been successful in managing uncomplicated child fever cases and malaria, distributing and promoting contraceptives as well as enforcing the importance of exclusive breastfeeding. Human resource shortages and growing populations have provided fresh significance to training CHWs in ever more complicated duties. For nations with restricted training or recruitment resources, assignment shifts may allow CHWs or less trained TBAs to receive training and conduct procedures that may have earlier been reserved for more extremely qualified experts (WHO 2012).

Community strategies offering a range of child health interventions including vitamin A (Fiedler and Chuko 2008), ITN distribution (Ross and others 2011), home-based fever management (Nonvignon et al. 2012), treatment of heavily malnourished children (Puett, Sadler et al. 2013 ; Puett, Salpéteur, et al. 2013), and training on neonatal health improvements (Sabin et al. 2012) are cost-effective policies. Distance factor is a key concern in rural settings where health facilities are sparsely distributed. In such environments, many clients are likely to embark on the journey for

treatment as pedestrians due to scarce transportation services. In a study in rural Nigeria, it was observed that rural people tend to depend on self-medication and traditional care closer to their residences in order to reduce their cost of transportation and severity of accessibility to distant healthcare services (Titus et al. 2015).

2.8 The MCHNP Project.

MCHNP is a World Bank funded project which has the goal to accomplish intended enhancements in health and nutrition outcomes. It strives to offer funding to reinforce key interventions, eliminate blockades to access health, strengthen responsibility and institutional ability. A key innovation in this project is the employment of a financing strategy based by supporting accountability, improving incentives for community health employees and focusing on outcomes. There are two mutually reinforcing components, the first one concentrates on service delivery and the second on capacity building. (World Bank, 2014). The service delivery component centers on strengthening supply, creating demand, and increasing ownership and accountability of district level stakeholders, outreach workers, community leaders and household members. The component supports the uptake of a package of essential community nutrition and health actions (ECNHA) and addresses gaps in knowledge and community practices such as reproductive behavior, nutritional support for pregnant women and young children, recognition of illness, home management of sick children, disease prevention and care-seeking behavior.

2.9 Contribution of MCHNP

In line with the MCHNP implementation, proof of targeted evidence-based funding from other nations such as Burundi, Rwanda, Zambia and Sierra Leone indicate that access and use of fundamental primal health facilities are increased. (Ashis Das et al, 2016). Evidence show that MCHNP Performance Based Financing (PBF) increased the probability of women delivering in

an institution by 21 percentage points (p=0·0001), the probability of using antenatal care by 7 percentage points (p=0·067), and the use of modern family planning services by 5 percentage points (p=0·002) (Bonfrer et al., 2013). MCHNP intervention group had a 23% increase in the number of institutional deliveries and increase in the number of preventive care visits by children aged 23 months or younger by56% (Gertler et al., 2011).

2.10 Process Evaluation

A process evaluation focuses on the implementation process and attempts to determine how successfully the project followed the strategy laid out in the logic model. (USAID, 2009)

There are significant benefits to conducting a process evaluation. As a checkpoint for program implementation, process evaluation ensures the program is delivered according to design. If any standards are not met, findings at this stage of evaluation can save subsequent time and funding. (Saunders et al, 2005) In addition, a process evaluation creates a feedback loop by including routine assessments such as documentation of resources used, measurement of output indicators, and tracking of project reach among the target population. Because these activities are done routinely throughout the timeline of the project, data collection and analysis may reveal early challenges of the program. This allows implementers to alter program activities accordingly and, hopefully, improve the chances of positive outcomes (CDC 2008)

Lastly, process evaluation allows evaluators and program developers to pinpoint strengths and weaknesses within the program design and improve upon the program in future scale-up efforts. (Issel, 2009).

An organization's performance is influenced by its capacity, by its internal environment, and by the external environment in which it operates and this can be expressed in terms of four key indicators: effectiveness, efficiency, relevance, and financial sustainability (Alma, 2013).

Researchers analysing transformations and impacts of health programmes in developing countries agree that institutional capacities are central to formulating, implementing, and producing effective results in maternal and child health. A study on institutional state capacities defines these as the ability of public organisations 'to perform appropriate tasks effectively, efficiently, and sustainably. Implementing these tasks generally requires coordinated actions among several organisations. Gaps between programmatic goals and policy results can be attributed to limitations in institutional capacity to perform specific tasks according to these goals. (Alma, 2013).

Butterfoss (2005) employed process evaluation to measure participation in community initiatives. He concluded that process evaluation plays a vital role in community-partnership interventions and research. The study further acknowledged that measurement of process indicators alone however is insufficient.

2.11 Summary

Information presented in the literature focused on community-based interventions such as MCHNP, as an essential component that has the potential to substantially improve maternal, child health and nutrition outcomes globally with specific focus on Sub-Saharan Africa. Evaluation of the outcomes of Maternal Child Health and Nutrition Improvement Project have been conducted in Burundi, Rwanda and other African countries showing varied outcomes in these countries. There is however no known publication on the evaluation of the project in Ghana. Moreover the evaluations conducted in these countries did not provide detailed information about the maternal, child health and nutrition implementation processes, gap in knowledge of implementers and barriers associated with the implementation of the project. Stakeholders including program directors, community members, and funders would want to know if the program is working as expected and making a difference for its intended participants. For the MCHNP project to succeed,

the solution lies in periodic evaluation of the project's processes and their activities including other community engagements. A combination of efforts is required to provide managers and implementers with first-hand information on the status of implementation to ensure that issues are quickly identified and resolved. This will keep the project in check towards its objectives and ultimate goals. This study is therefore an attempt to provide information on the implementation processes of MCHNP to help answer the question of whether the project is operating as intended. This can set the stage for an outcome evaluation of the MCHNP project in Ghana.

CHAPTER THREE

METHODS

3.1 Study Design

The study was a cross sectional descriptive study, which employed quantitative approach to determine current status of the key processes (governance, maternal health, child health and nutrition services) of the MCHNP. The techniques used involved review of relevant documents on MCHNP project guidelines and service activity reports by CHPS facilities. Structured questionnaire was used to interview key players involved in implementing the MCHNIP project at the regional, district and facility levels. Prevailing processes were compared to the original project processes, open ended questions were used to elicit information on barriers and challenges encountered during the implementation.

3.2 Study Location/Area

The study was conducted in the Eastern Region of Ghana with Koforidua as its capital, located in the New Juaben municipality. It is the sixth largest region with a land area of 19,323 Kilometers square. It has population of 3,171,743 made up of 49% males and 1,459,316 51% females. There is a growth rate of 2.1 according to 2010 population census. Akan is the dominant ethnic group. Other major ethnic groups are the Ga-Dangme and the Ewe. The economy of the Eastern Region is predominantly agrarian, with both subsistent and commercial production of food and cash crops. The region has 26 districts demarcated into 183 sub-districts, 18 out of the 26 districts have at least one hospital. Other levels of health facilities abound in all districts in the region. MCHNP is being implemented in all 184 sub-districts and 828 CHPS facilities in the Eastern Region. The MCHNP project covers the entire population of the Region (3,171,743).

3.3 MCHNP Implementation in the Eastern Region

The MCHNP project in Ghana started as a pilot project in three (3) regions including the Eastern region and became fully operational when it was finally scaled up to all regions in the country in 2015. The project implementation has since been ongoing in all 26 districts of the region, embarking on activities to reducing health obstacles and improving community-based results of maternal, child health and nutrition.

The Regional Health Service Director (RDHS) is accountable for implementing and tracking project operations at the regional level. For day-to-day activities, including the preparation of a quarterly regional progress report on activities of all districts in the region, a team comprising the Deputy Regional Director, Public Health, the Regional Nutrition Officer and Disease Control Officer. In line with the operating guidelines drawn up by GHS, the District Director of Health Services (DDHS) coordinates the development and implementation of the District Action Plan for subprojects. For districts to develop context-relevant implementing strategies, the guidelines provide sufficient flexibility. Once authorized funds are distributed to the district from the region. The District Director is the district project coordinator and offers technical advice and management for the execution and tracking of the project. The District Health Management Team (DHMT) monitors and assesses the operations of the Districts, while CHO and community-based intervention professionals are supported by the district Health Management Team (DHMT).

The main change agents in the project are community health officers (CHO's) and community volunteers, carrying out outreach programmes, home visits and promoting development operations. This initiative promotes the current community structures to mobilize members of the society, promote the selection and monitoring of community volunteers and promote the monthly operations for development promotion through periodic leadership conferences, which discuss

advancement in the society. The volunteers help organize periodic community meetings to review the development of projects. It also utilizes current local structures to get Community leaders to take responsibility for health and dietary problems in the community. They are responsible for these problems.

3.4 Study Population

The study was conducted on CHPS facilities, District Health Directorates and the Regional Health Directorate by engaging MCHNP coordinators at the regional and district levels and also Community Health Officers (CHOs) at the facility level. These were the major stakeholders in the project implementation.

3.5 Inclusion Criteria

Study participants included staff identified as MCHNP coordinators at the regional and district levels. CHOs within sampled facilities also qualified to be part of the study. Only participants who provided consent in the selected facilities were interviewed.

3.6 Exclusion Criteria

Non regional and district MCHNP coordinators were excluded from the study. CHOs not working at the CHPS service delivery point were also excluded. All participants who did not provide consent were exempted from the study.

3.7 Study Variables

The outcome variable of the study was the implementation status of MCHNP in the Eastern region and the main variables measured were the MCHNP processes (governance, maternal, child health and nutrition services) as indicated in the table 1.

Table 1: Study Variables

Variable	Classification	Levels
Governance Process		
Facility	Independent (Categorical)	Nominal
District	Independent (Categorical)	Nominal
Coordinators	Independent (Categorical)	Nominal
Knowledge	Independent (Categorical)	Ordinal; 1. Poor 2. Good. 3. Excellent
Plan and Budget	Independent (Categorical)	Binary; Available / Not available
MCHNP meetings	Independent (Numerical)	Discrete
Mode of funds release	Independent (Categorical)	Binary; Unapproved / Approved
Mode of accounting	Independent (Categorical)	Binary; Unapproved / Approved
Number of Monitoring and supervision visits	Independent (Numerical)	Discrete
Maternal Health Process		
Pregnant women registered	Independent (Numerical)	Discrete
Maternal Health Referrals	Independent (Numerical)	Discrete
Adolescents counselled on FP	Independent (Numerical)	Discrete
Family planning acceptors	Independent (Numerical)	Discrete
FP commodities	Independent (Categorical)	Binary; Available / Not available
Child Health Process		
ITN dist. Among under fives	Independent (Categorical	0. No 1. Yes
Health promotion on under five bed net use	Independent (Numerical)	Discrete
Community education on childhood illnesses	Independent (Categorical)	0. No 1. Yes
Management of illnesses in under-fives	Independent (Categorical)	0. No 1. Yes
Nutrition Process		
Community nutrition based education	Independent (Categorical)	0. No 1. Yes
Counselling on Infant and Young Child Feeding (IYCF)	Independent (Categorical)	0. No 1. Yes
Growth Promotion Sessions	Independent (Numerical)	Discrete
Outreach Visits	Independent (Numerical)	Discrete

3.8 Measurement of indicators

Table 2 identifies the project indicators and provides information on how each indicator was measured.

Table 2: Measurement of indicators

Indicator	Measurement	
Governance Processes 1. Availability of MCHNP coordinators.	Available / Not available	**Norm** 1 MCHNP coordinator designated at each level
2. Category of staff identified as MCHNP coordinators.	Approved category / unapproved category	R/D Directors of Health
3. Knowledge on project Objectives.	Ability for MCHNP coordinators to identify MCHNP objectives.	Clarify all 3 objectives
4. Availability of MCHNP plans and budget.	Available / Not available	Hard copy MCHNP action plan and budget for 1st 2019 quarter available.
5. Meetings held on MCHNP per quarter	Meeting records available/ Not available	At least 1 meeting in 1st 2019 quarter held on MCHNP
6. Mode of release of MCHNP funds.	Approved mode or Non-approved mode	Cheque to district and CHPS accounts
7. Mode of accounting of MCHNP funds.	Approved mode or Non-approved mode	Funds held in trust ledger and Advance ledger books.
8. Monitoring and supervision received.	Evidence available / not available	At least 1 monitoring and supervision on MCHNP activities in a quarter
Maternal Health process 9. Pregnant women registered in the first trimester.	Evidence available / not available	Availability of Register for the registration of pregnant women.
10. Maternal health referrals made from the facility.	Evidence available / not available	Availability of records on maternal health referrals
11. Community pregnancy care sessions held in the quarter.	Evidence available / not available	Availability of records on community pregnancy care sessions.
12. Adolescents counseled on family planning.	Evidence available / not available	Availability of records on adolescents counseled on family Planning
13. Family planning acceptors.	Evidence available / not available	Availability of records on family planning clients accepting a family planning method
14. Availability of family planning commodities.	Available / Not available	Stock of family planning commodities.

Child Health Processes 15. Pregnant women and under-fives receiving bed nets.	Evidence available / not available	Availability of records on bed nets distribution to pregnant women and under-fives.
16. Health promotion sessions on bed net use.	Evidence available / not available	Availability of records on promotion sessions on bed net
17. Community-based counseling and education on childhood illnesses held.	Evidence available / not available	Availability of records on counselling and education on childhood illnesses.
18. Under-fives managed for illnesses	Evidence available / not available	Availability of records on under-fives managed for illnesses.
Nutrition Processes 19. Community-based nutrition education held.	Evidence available / not available	Availability of records on community-based nutrition education sessions.
20. Young Child and Infant (YCIF) feeding counseling sessions.	Evidence available / not available.	Availability of records on Young Child and Infant feeding counseling sessions
21. Community based growth promotion sessions held.	Evidence available / not available	Availability of records on community based growth promotion sessions.
22. Outreach visits made in the quarter	Evidence available / not available	Availability of records on outreach visits per quarter.
23. Barriers of MCHNP	Number various barriers enumerated by respondents	Not Applicable
24. MCHNP implementation Status	Poor / Good/ Very good	Not Applicable

3.9 Sampling

3.9.1 Sample Size Determination.

The study purposefully selected three (3) MCHNP administrative levels; one (1) Regional Health Directorate, five (5) District Health Directorates, and ten (10) functional CHPS compounds. A total of sixteen (16) facilities were involved; 16 interviews were conducted among 6 MCHNP coordinators and 10 CHOs.

3.9.2 Sampling Method/Procedure

Purposive sampling was used to select MCHNP coordinators from the Regional and District Health Directorates. Simple random sampling technique was used to select two (2) functional CHPS facilities from each district. Simple random technique was used to select One (1) CHO at each CHPS facility to participate.

3.10 Quality Control/Assurance

3.10.1 Training of field staff

To ensure the understanding of the questionnaire and to maintain data quality, data collectors were trained in the use of the data collection tools. The study team was trained prior to data collection on all aspects of the study. They were trained on how to use the questionnaire and also on the protection of human participants, confidentiality and the process of obtaining informed consent.

3.10.2 Pre-testing of data collection tool

The questionnaire and the checklist for data review were pre-tested in purposively selected districts and facilities in the region that were not part of the study sample.

3.10.3 Revision of data collection tools/questionnaires

Responses from participants and results from analysis of the pre-test were used to revise and finalize the data collection tools to ensure that they elicited right responses that answered the objectives of the study.

3.11 Data Collection

Trained research assistants using an electronic structured questionnaire finalized after pre-testing interviewed all consenting participants. All interviews for the participants were done in English within a time period of 30 to 40 minutes.

3.12 Supervision of fieldwork

Data collectors worked with the Principal Investigator (PI) who was responsible for checking their work to ensure the right data was collected during the fieldwork. Regular communications between field workers and the PI were ensured to resolve all issues before participants returned from the field.

3.13 Data Entry

Using a web based data collection application (ODK_ona.io) data entered on the field was checked for consistency and accuracy by the PI and a trained data manager. The PI reviewed the data collected to make sure it corresponded to the study's sample size.

3.14 Data Processing and Management

Data collected was checked for completeness and consistency and accuracy. Data cleaning and preparation was mainly done using MS Excel.

3.15 Data storage, safety and ownership

The consent forms are kept safely in the custody of the Principal Investigator. All electronic data have been backed up online in a designated drop box. Only the PI and the Research unit of the Eastern Regional Health Directorate have access to the study data. Ownership of data is by both the Principal Investigator and the Eastern Regional Health Directorate.

3.16 Data Analysis

3.16.1 Determination of governance process

MCHNP governance process was determined by evidence of implementing MCHNP governance activities as outlined in the MCHNP implementation guideline by World Bank (2014), an official appraisal document of the International Development Association Project. Eight (8) key activities

are indicated in the MCHNP guidelines implemented under governance process. Tertile statistics was used to determine the status of MCHNP governance process using three percentile cutoff points; score of <37.5 indicated incomplete process; scores of 37.6 - 75.0 indicated partially complete process and score of 76.1-100 indicated fully completed process. This was done using Microsoft Excel template by dividing the number of prevailing governance activities under implementation by the total number of governance activities in the MCHNP implementation guidelines and then multiplied by 100 to arrive at a percentage score.

3.16.2 Determination of maternal health processes

MCHNP maternal health process was also determined by evidence of implementing MCHNP maternal health activities as outlined in the MCHNP implementation guideline by World Bank (2014). Six (6) key activities are indicated in the MCHNP guidelines implemented under maternal health. Tertile statistics was again used to determine the status of MCHNP maternal health process. The measure had three percentile cutoff points; score of <37.5 indicated incomplete process; scores of 37.6 - 75.0 indicated partially complete process and score of 76.1-100 indicated fully completed process. This was done using Microsoft Excel template by dividing the number of prevailing maternal health activities under implementation by the total number of maternal health activities in the MCHNP implementation guidelines and then multiplied by 100 to arrive at a percentage score.

3.16.3 Determination of child health processes

MCHNP child health process was determined by evidence of implementing MCHNP child health activities as outlined in the MCHNP implementation guideline by World Bank (2014). Four (4) key activities are indicated in the MCHNP guidelines implemented under child health. Tertile statistics was used to determine the status of MCHNP child health process. The measure had three

percentile cutoff points; score of <37.5 indicated incomplete process; scores of 37.6 - 75.0 indicated partially complete process and score of 76.1-100 indicated fully completed process. This was done using Microsoft Excel template by dividing the number of prevailing child health activities under implementation by the total number of child health activities in the MCHNP implementation guidelines and then multiplied by 100 to arrive at a percentage score.

3.16.4 Determination of nutrition processes.

MCHNP nutrition process was determined by evidence of implementing MCHNP nutrition activities as outlined in the MCHNP implementation guideline by World Bank (2014). Four (4) key activities are indicated in the MCHNP guidelines implemented under nutrition. Tertile statistics used to determine the status of MCHNP nutrition process. The measure had three percentile cutoff points; score of <37.5 indicated incomplete process; scores of 37.6 - 75.0 indicated partially complete process and score of 76.1-100 indicated fully completed process. This was done using Microsoft Excel template by dividing the number of prevailing nutrition activities under implementation by the total number of nutrition in the MCHNP implementation guidelines and then multiplied by 100 to arrive at a percentage score.

3.16.5 Determination of implementation barriers.

Barriers to the implementation of MCHNP were determined by the number of various barriers enumerated by respondents. The proportion of facilities enumerating a particular barrier was also determined. The barriers were classified by levels of the MCHNP implementation.

3.2 Ethics Considerations/Issues.

The study received approval from the Ghana Health Service Ethics Review Committee (i.e., GHS-ERC- 035/06/19) of the Research and Development Division, Accra. In addition, permission was

given by the Eastern Regional Health Directorate, District Health Directorates and facilities where the study was conducted.

3.2.1 Consenting process.

Written Informed consent was used to seek consent from respondents after the background; goal and objectives of the study were explained to them. Participants consented to the study filling written informed consent forms bearing their names and the signature and that of the researcher. Only participants who agreed to participate and provided a written consent were interviewed.

3.2.2 Privacy and anonymity.

During the interviews, the moderator asked for consent to record and take notes on all discussions and assured respondents of confidentiality and anonymity. For the hard copy data, all forms were assigned unique 'ID Numbers'. No data was identified with respondent's personal information. All interviews took place at a location with much privacy and comfort agreed upon by the researcher and the respondent. Information collected are held strictly confidential and will not be shared with people outside the research group. Only group results and not individual results are available for scientific and public health purposes.

3.2.3 Risk

This study did not cause harm to participants. However participants spent about 30 to 40 minutes of their time for the interviews.

3.2.4 Benefits

Participation in this study did not have any direct benefits, information obtained from this study however will help the efficient implementation of the MCHNP, which in the long run translate to improve maternal and child health outcomes in the Eastern Region.

3.2.5 Compensation

Participants did not receive any form of compensation for participating in this study.

3.2.6 Voluntariness and the right to withdraw.

Participation in this study was completely voluntary. Participants had the right to decline participation in this study, or withdraw their consent at any time, or decline to answer any question they did not feel comfortable about. Refusal to be part of this study did not affect participants in anyway.

3.2.7 Conflict of interest

The Principal Investigator and all other investigators declared no conflict of interest in the conduct of this research.

3.3 Limitations of this study

Due to financial and time constraints, only ten (10) facilities in five (5) selected districts from the 26 districts were involved in the study. Involvement of more than five districts would have improved the rigidity of the study through triangulation of information from a section of MCHNP coordinators and CHOs across the Region

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CHAPTER FOUR

RESULTS

4.0 Introduction

This chapter presents the outcome of the analysis of the study. The results are presented to provide information on the background characteristics and the study objectives. Table 1 to 5 provide details on performance by facilities.

4.1 Background characteristics of CHPS facilities.

A total of ten (10) CHPS facilities from five (5) districts were evaluated on the MCHNP project. The average years of functionality of the facilities was eight (8) and hence have been in operation since the inception of the MCHNP project in 2015. Two (2) CHOs on the average work in each facility and the mean OPD performance is 136. Table 1 provides basic information about the CHPS facilities.

4.2 MCHNP governance processes at CHPS facilities.

Table 2 shows evidence of implementing MCHNP governance activities at the facility level as outlined in the MCHNP implementation guidelines. Few (10%) of the facilities scored 62.5%, 20% scored 50%, and the rest scored 25 %. The overall average score for MCHNP governance process was 43.8%. Based on this score the status of MCHNP governance processes was determined as partially complete.

4.3 MCHNP maternal health processes at CHPS facilities

Per the evidence of implementing MCHNP maternal health activities as outlined in the MCHNP implementation guidelines, all the ten 10 facilities scored 100%. This indicates the overall status of MCHNP maternal health processes as fully completed as shown in table 3.

4.4 MCHNP child health processes at CHPS facilities

All the facilities showed records on implementing MCHNP child health activities as outlined in the MCHNP implementation guidelines. The100% score therefore established the status of MCHNP child health processes as fully completed in the facilities.

4.5 MCHNP nutrition processes at CHPS facilities

Per the evidence of implementing MCHNP nutrition activities as outlined in the MCHNP implementation guidelines, all the 10 facilities scored 100%. The overall score indicates that the status of MCHNP nutrition process was fully-completed.

4.6 Summary of MCHNP implementation Status

The status of MCHNP processes showed a fully completed implementation for maternal, child health and nutrition processes with a 100% score. However MCHNP governance process recorded an average score of 43.8% at the facilities. The status was therefore generally determined as partially complete. Figure 1shows the details of the implementation statuses.

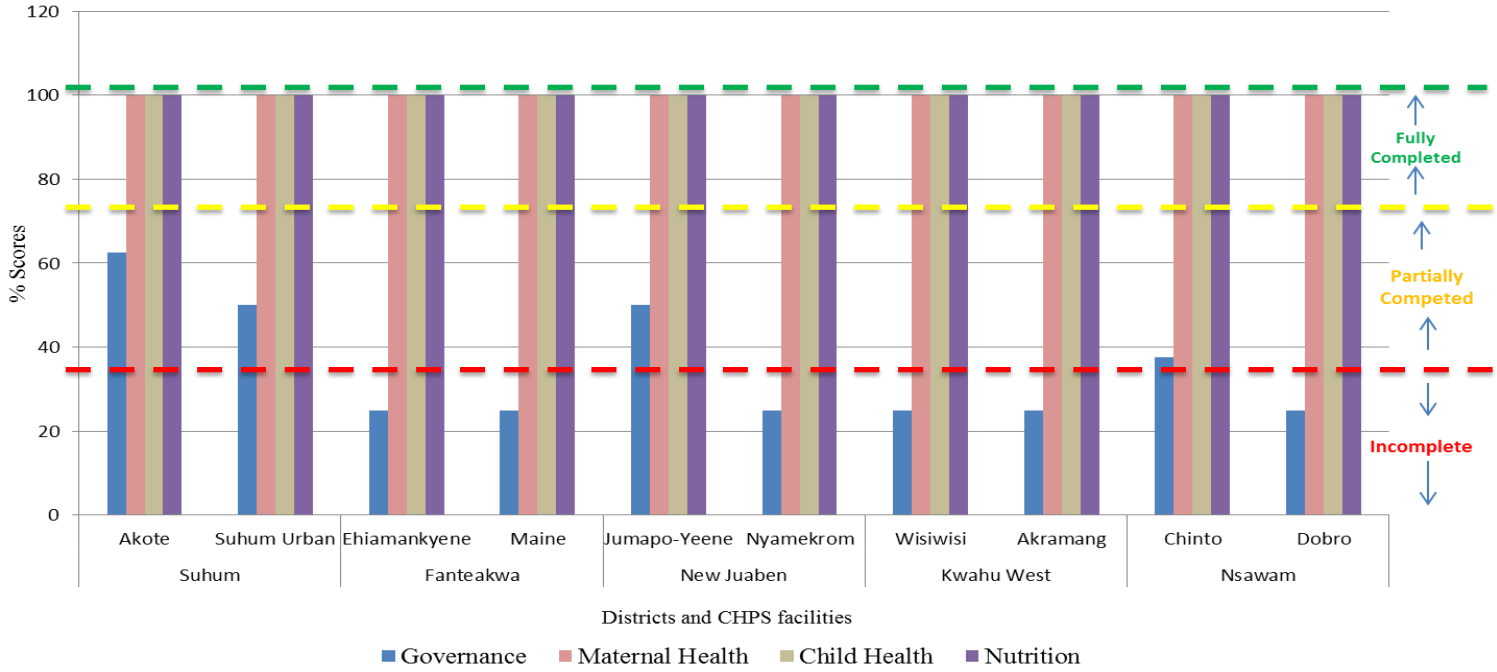

Figure 2: **Statuses of MCHNP implementation Processes**

Table 1: Background Characteristics of CHPS facilities

District	CHPS Facilities	Years of Functionality	Number of CHOs	Average OPD attendants per month	Year of Inception of MCHNP
Suhum	Akote	10+	2	150	2015
	Suhum Urban	10+	3	283	2015
Fanteakwa	Ehiamankyene	10+	1	172	2015
	Maine	8	1	78	2015
New Juaben	Jumapo-Yeene	10+	2	331	2015
	Nyamekrom	3	2	91	2016
Kwahu West	Wisiwisi	5	1	52	2015
	Akramang	9	1	68	2015
Nsawam	Chinto	6	2	50	2015
	Dobro	8	2	83	2015
Average		**8**	**2**	**136**	-

Table 2: MCHNP governance processes scores at CHPS facilities.

District	CHPS	MCHNP Governance process								CHPS Score	CHPS % Score	Status of Governance process
		Project Cordinator	Approved Cordinator	Identified Objective	Plan and Budget	MCHNP Quarterly Meetings	Funds release mode	Funds Accout mode	Received Supervision			
Suhum	Akote	+	-	+	-	+	+	+	-	5	62.5	Partially completed
	Suhum Urban	+	-	-	-	-	+	+	+	4	50	Partially completed
Fanteakwa	Ehiamakyene	+	-	-	-	-	-	+	-	2	25	Incomplete
	Maine	+	-	-	-	-	-	+	-	2	25	Incomplete
New Juaben	Jumapor	+	-	-	-	+	-	+	+	4	50	Incomplete
	Nyamekrom	+	-	-	-	-	-	+	-	2	25	Incomplete
Kwahu West	Wisiwisi	+	-	-	-	-	-	+	-	2	25	Incomplete
	Akramang	+	-	-	-	-	-	+	-	2	25	Incomplete
Nsawam	Chinto	+	-	-	-	+	-	+	-	3	37.5	Partially completed
	Dobro	+	-	-	-	-	-	+	-	2	25	Incomplete
Ovarall Average										**3.5**	**43.8**	**Partially completed**

Key: + = Evidence available - = No evidence

Table 3: MCHNP Maternal health processes scores at CHPS facilities

District	CHPS	MCHNP Maternal Health processes						CHPS Score	CHPS % Score	Status of Maternal Health process
		Registration of pregnant women	Community Referral	Pregnancy care	FP for Adolescents	Adolescent Counseling	FP commodity stock			
Suhum	Akote	+	+	+	+	+	+	6	100	Fully completed
	Suhum urban	+	+	+	+	+	+	6	100	Fully completed
Fanteakwa	Ehiamakyene	+	+	+	+	+	+	6	100	Fully completed
	Maine	+	+	+	+	+	+	6	100	Fully completed
New Juaben	Jumapo	+	+	+	+	+	+	6	100	Fully completed
	Nyamekrom	+	+	+	+	+	+	6	100	Fully completed
Kwahu West	Wisiwisi	+	+	+	+	+	+	6	100	Fully completed
	Akramang	+	+	+	+	+	+	6	100	Fully completed
Nsawam	Chinto	+	+	+	+	+	+	6	100	Fully completed
	Dobro	+	+	+	+	+	+	6	100	Fully completed
Ovarall Average								**6**	**100**	**Fully completed**

Key: + = Evidence available - = No evidence

Table 4: MCHNP Child health processes scores at CHPS facilities

District	CHPS	MCHNP Child Health processes				CHPS Score	CHPS % Score	Status of Child Health process
		Distribution of Bednets.	Health Promotion on Bednets	Counseling on childhood illnesses	Management of childhood illnesses			
Suhum	Akote	+	+	+	+	4	100	Fully completed
	Suhum urban	+	+	+	+	4	100	Fully completed
Fanteakwa	Ehiamankyene	+	+	+	+	4	100	Fully completed
	Maine	+	+	+	+	4	100	Fully completed
New Juaben	Jumapo	+	+	+	+	4	100	Fully completed
	Nyamekrom	+	+	+	+	4	100	Fully completed
Kwahu West	Wisiwisi	+	+	+	+	4	100	Fully completed
	Akramang	+	+	+	+	4	100	Fully completed
Nsawam	Chinto	+	+	+	+	4	100	Fully completed
	Dobro	+	+	+	+	4	100	Fully completed
Ovarall Average						**4**	**100**	**Fully completed**

Key: + = Evidence available - = No evidence

Table 5: MCHNP nutrition processes scores at CHPS facilities

District	CHPS	MCHNP Nutrition processes				CHPS Score	CHPS % Score	Status of Nutrition process
		Community based nutrition education.	Counseling and promotion of IYCF	Community based growth promotion sessions	Home Visits and outreach services			
Suhum	Akote	+	+	+	+	4	100	Fully completed
	Suhum-urban	+	+	+	+	4	100	Fully completed
Fanteakwa	Ehiamankyene	+	+	+	+	4	100	Fully completed
	Maine	+	+	+	+	4	100	Fully completed
New Juaben	Jumapo	+	+	+	+	4	100	Fully completed
	Nyamekrom	+	+	+	+	4	100	Fully completed
Kwahu West	Wisiwisi	+	+	+	+	4	100	Fully completed
	Akramang	+	+	+	+	4	100	Fully completed
Nsawam	Chinto	+	+	+	+	4	100	Fully completed
	Dobro	+	+	+	+	4	100	Fully completed
Ovarall Average						**4**	**100**	**Fully completed**

Key: + = Evidence available - = No evidence

4.7 Barriers to MCHNP implementation.

Figure 3 shows MCHNP implementation challenges. Prominent (100%) among the challenges were the delay in the release and strict restrictions placed on the MCHNP funds. 68.8% of the facilities did not have MCHNP implementation guidelines. 62.5% each of the facilities complained of inadequate technical staff to carryout planned MCHNP activities and workload. It is worth noting that the regional and district coordinators (37.5%) said there was no structured training or orientation on MCHNP before it was rolled out. The rest of the barriers were inadequate MCHNP funds, poor community participation, apathy in supporting MCHNP activities when MCHNP funds are unavailable and fear of sustainability of the project.

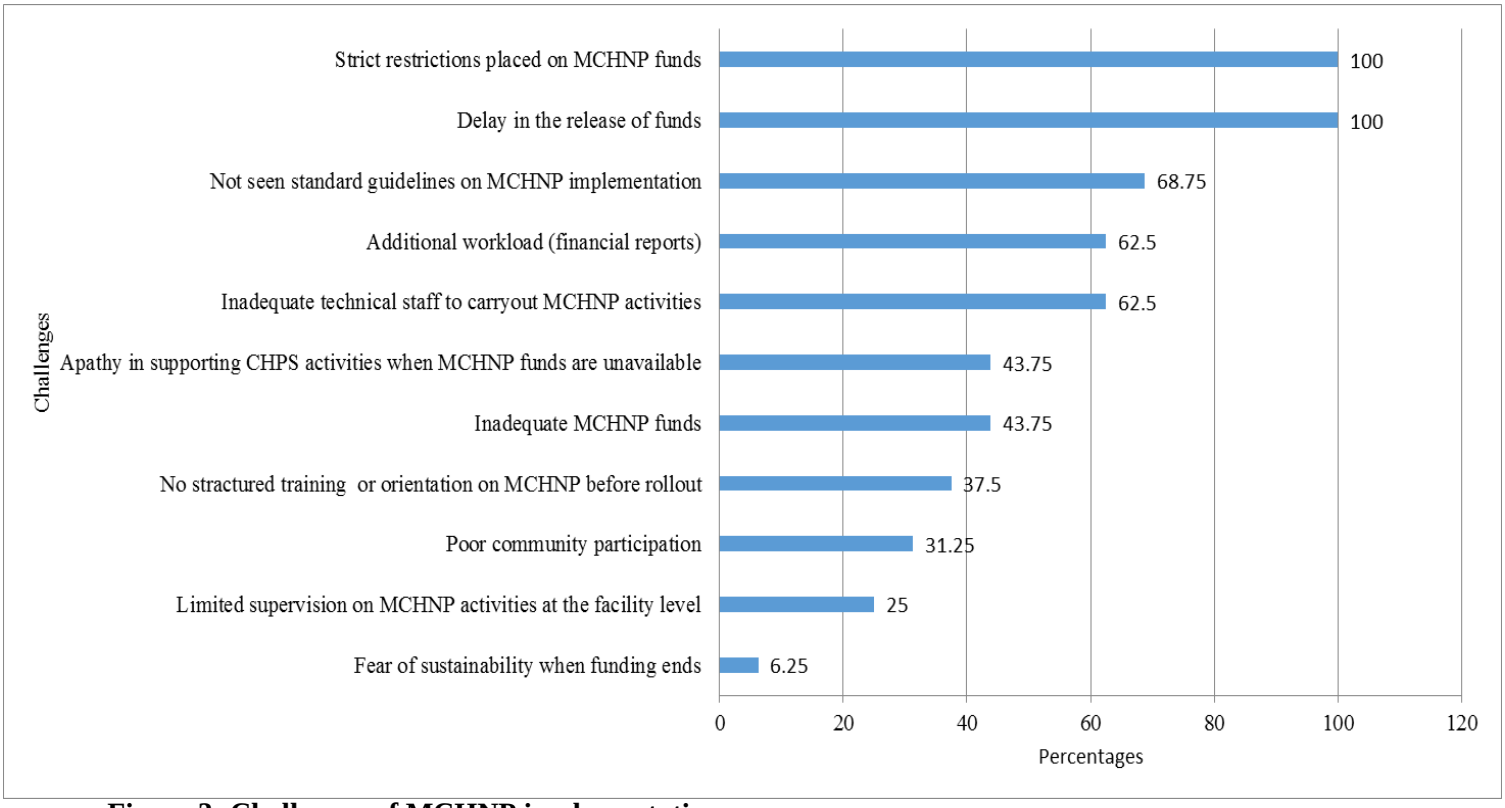

Figure 3: Challenges of MCHNP implementation.

Table 6 shows MCHNP governance scores and the number of challenges mentioned by Community Health Officers at the facility level. It was observed in majority of the facilities (70%) that, the lower the score on MCHNP governance, the higher the number of challenges mentioned. This was more pronounce in six (6) of the facilities. Furthermore Pearson Correlation test found significant correlation between MCHNP governance scores and the number of challenges identified (r = -1.00). The relationship showed that where there was a decrease in governance scores the number of challenges increased.

Table 6: MCHNP governance scores and number of challenges mentioned by CHOs

CHPS Facilities	Governance Scores	Number of Challenges
Akote	5	3
Suhum Urban	5	4
Ehiamankyene	2	6
Maine	2	6
Jumapo	4	4
Nyamekrom	2	6
Wisiwisi	2	6
Akraman	2	6
Chinto	3	5
Dobro	2	6

Table 7 shows MCHNP governance scores and the number of challenges mentioned by MCHNP coordinators at the District level. It was observed in most of the District Health Directorates (60%) that, the lower the score on MCHNP governance, the higher the number of challenges mentioned. However Pearson Correlation test found a less significant correlation between MCHNP governance scores and the number of challenges identified by MCHNP coordinators (r = 0.01). This shows a weaker relationship between governance and the number of challenges identified by MCHNP coordinators.

Table 7: MCHNP governance scores and number of challenges mentioned by MCHNP coordinators.

District Health Directorate	Governance Scores	Number of Challenges
Suhum	5	3
Fanteakwa	4	5
New Juaben	4	4
Kwahu West	4	6
Nsawam	4	5

DISCUSSION

5.1 Introduction

This study was an evaluation to determine the implementation status of MCHNP in the Eastern Region. The findings of the study have been discussed according to the study objectives which highlights the evidences in the implementation of the various MCHNP processes according to the MCHNP implementation guidelines.

5.2 Determination of MCHNP governance processes at CHPS facilities

This study found that on the evidence of implementing MCHNP governance processes according to plans outlined in the MCHNP implementation guidelines, One (1) out of the 10 facilities scored 62.5%, two (2) facilities scored 50%, and the rest (7) scored 25%. This indicates that the status or nature of MCHNP governance processes in 70% of the facilities were incomplete.

The study further found that each of the implementation levels had a Coordinator for the MCHNP project, however, the cadre of staff identified as the MCHNP Coordinators were not in conformity with the official MCHNP appraisal document of the International Development Association Project which has it that the District Director will act as the focal individual in the district for the project and will assist in the execution and supervision of the project. (World Bank. 2014). There is the concern of whether the identified Coordinators were able to articulate the responsibilities that came with the portfolio, this is because the study also found that only one of the MCHNP Coordinators was able to correctly enumerate all the MCHNP project objectives.

As part of the MCHNP institutional and implementation arrangements, Health Service Director in the district (DDHS) shall, following the operational rules prepared by the GHS headquarters, coordinate the preparation and executory District Action Plan for sub-projects. The guidelines

provide districts with ample flexibility in developing contextual implementing strategies (World Bank 2014). However the findings of this study showed that none of the districts and facilities had a documented strategic plan and budget specifically for the MCHNP project. This could imply that activities on MCHNP in many of the districts and facilities were implemented without specific strategies.

As part of the MCHNP administrative mechanisms, the project's main agents for change are Community Health Officers (CHOs) and community volunteers. The volunteers are to support the organization of quarterly community and CHO sessions to monitor project progress. The project uses local structures to promote chief and elder gatherings to establish a platform for ownership and accountability to address problems influencing the health and nutritional status of the society. (World Bank 2014). With this as a backdrop for organizing MCHNP quarterly meetings, the study found that only 3 of the facilities showed evidence of at least one meeting held on MCHNP in the first quarter of 2019. This disclosed that meetings with the community and CHOs to review progress of project operations are nearly non-existent in some installations and communities and are likely to impact the sustainability of the project.

Under component 1.2 of the Community Performance-Based Financing of MCHNP (World bank 2014, pg. 52), the Community Performance Financing Program shall be assigned funding in the context of the project. CHPS / CHO Teams shall open bank accounts with rural banks at their places for money to be transferred from GHS to rural banks situated in the districts to the beneficiary Community Health Teams. The lead Community Health Officer (CHO) and the lead volunteer in the teams will be the joint signatories for receipt of funds. This study rather found that apart from 2 facilities that received monies via their bank accounts, all the other 8 CHPS facilities received cash directly from their DHAs or sub-districts. A publication by Bossert et al in 2002 emphasizes on

decentralizing health systems as a common pillar of health sector reform initiatives which is a means to improve efficiency and quality of services as well as promoting accountability and local governance of the health system.(Bossert et al, 2002)

Supervision as a component under the Evidence for Management and Policy Decision Making on MCHNP, indicates that GHS is to provide capacity to effectively coordinate, supervise and monitor implementation of the community-based service, it is worth noting that majority (80%) of the facilities as revealed by the study had not received monitoring on MCHNP from a higher level since the first quarter of 2019. By extension this implies that the activities of the CHOs and CHVs are least monitored and supported regularly. Also opportunities to address challenges or bottlenecks and to provide timely feedback might be lost. Dr Kate Tulenko concluded in her article on supervision of health workers that Community Health Workers (CHNs) have special supervision needs usually because of the duration of their training, their numbers and mostly because they practice alone and are required to reach out to families in the communities, it was necessary to invest in high-quality supervision for CHWs to help them reach their full potential and help communities achieve optimum health (Tulenko et al 2012).

5.3 Determination of MCHNP maternal health processes at CHPS facilities

The findings of this study under MCHNP maternal health processes indicated total conformity to the MCHNP implementation guidelines. All facilities showed evidence of community registration of pregnant women, referrals of pregnant women to the next care level, sessions of community pregnancy care, provision of family planning services and ensuring availability of family planning commodities. The findings were found to be in line with the Ghana Reproductive Health Strategic Plan (2011) which emphasizes on evidence-based interventions that are most effective, and can make a difference in the immediate and long-term well-being of women and newborns. These

include: improving facilities for women's access to antenatal, post-natal care and family planning services so that maternal and fetal/newborn health status can be monitored and timely interventions implemented as necessary.

In determining the MCHNP processes implemented by facilities under maternal health according to the MCHNP implementation guidelines, all the facilities (10) scored 100%. This determines the nature of MCHNP maternal health processes in all the facilities as fully completed.

5.4 Determination of MCHNP child health processes at CHPS facilities.

The findings of this study under MCHNP child health processes indicated a total adherence to the MCHNP implementation guidelines (World Bank, 2014). All facilities showed evidence of bednet distribution, promotion of its usage to pregnant women and children below five (5) years, counseling, education and management of childhood illnesses. Similarly Bang and others (1999) found that interventions to reduce neonatal, infant and child deaths included home based care, surveillance to identify and promote the health of pregnant women and children.

5.5 Determination of MCHNP nutrition processes at CHPS facilities

The findings of this study under MCHNP nutrition processes indicated absolute conformity to the MCHNP implementation guidelines (World Bank, 2014). All facilities showed evidences of community–based education on nutrition, infant and young child feeding and counseling sessions, community-based growth promotion sessions, home visits and outreach services. The findings were found to be in line with a publication by the Johns Hopkins University and Parul Christian (2006) on community-based nutrition interventions which identified growth monitoring and promotion, supplementary feeding, education and communication for behavior change as requirements for a successful community-based nutrition intervention.

5.6 Barriers and challenges of MCHNP

Findings of this study reveal gaps and challenges associated with the implementation of the MCHNP project. These share similarities with findings of a study conducted by Haver et al. (2015) on the experiences in engaging health workers to provide maternal and newborn service, which identified critical challenges staff inadequacy and mix, poor community engagements and lack of motivation. Barriers identified by this study were overwhelmingly associated with governance processes. All Participants identified the delay in the release of the quarterly MCHNP funds as a major challenge because this prevents them from embarking on their quarterly activities on schedule. It is also worth noting that all the participants complained of restrictions that come with the MCHNP funds which does not provide any minimal allowance for its usage on other mutually important activities but for the purposes it was released whether or not that particular activity was necessary at that moment. Close to 70% of the facilities did not know about the MCHNP implementation guideline which is the main strategic document for the implementation of the project. Over 60% of the facilities complained of inadequate technical staff to carryout planned MCHNP activities which results in extra workload for the few, this is confirmed by the background characteristics of this study which showed an average of two(2) CHOs per facility expected to carry out all the activities outlined in the implementation guidelines plus other additional routine activities . It is revealing that the Regional and District MCHNP Coordinators stated unequivocally that there was no structured training or orientation on MCHNP before the project was rolled out. This shortfall was re-emphasized by a finding in this study when only 10% of coordinators were able to enumerate correctly objectives of MCHNP.

The rest of the challenges were inadequate MCHNP funds to meet demands of planned activities, poor community participation, apathy on the part of the District Health Directorate to support CHPS based activities when MCHNP funds were unavailable. There was also the mention of fear of

sustainability and continuity of activities on the MCHNP project in case the project officially ends. The challenges enlisted by the facilities share similar findings with a study on "Barriers and Facilitators for the Implementation and Evaluation of Community-Based Interventions" which found that the most important barriers included the lack of: adequate funding; skilled personnel; equipment and material resources; technical support for data management and analysis; training on project designs; political support from local and acceptance of the proposed intervention by the local community (Belizan et al. 2019).

5.7 Relationship between MCNHP governance and implementation challenges.

This study found significant correlation between MCHNP governance scores and number of challenges mentioned by MCHNP coordinators and Community Health Officers. This relationship may or may not represent causation between the two variables, but it does describe an existing pattern showing that the number of challenges increased whenever governance scores decreased. This finding shares a similar observation with Kickbusch et tal. (2011) in a study conducted for WHO on "Governance for health in the 21st Century". It stated that "actors and activities of governance influence health programmes, however, global health actors today are largely unequipped to ensure that health concerns are adequately taken into accounts".

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1 Conclusion

The evidence gathered by this study indicate that Maternal, Child health and Nutrition activities by CHPS facilities are implemented in accordance with the MCHNP implementation guidelines and shows very good implementation status for MCHNP service delivery. However, the status of governance is generally rated as partially completed due to inadequate alignment with MCHNP governance processes by majority of the facilities. The main implementation challenges relates to funding restrictions and delays in disbursements.

6.2 Recommendations

Based on the conclusion of this study, it is recommended that;

1. Governance processes in the MCHNP guideline should be reinforced across district and facility levels by the Regional Health Directorate.
2. MCHNP review meeting should be organized by the Regional Health Directorate to engage District Directors, MCHNP Coordinators and Community Health Officers to identify and find solutions to challenges in the implementation of the Project.
3. Efforts should be made by the Regional and District Health Directorates to maintain the current implementation status of maternal, child health and nutrition processes of MCHNP at the facility level.

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Appendix

Appendix2: Study tool.

PROCESS EVALUATION OF MATERNAL, CHILD HEALTH AND NUTRITION IMPROVEMENT PROJECT (MCHNP) IN THE EASTERN REGION, GHANA.

Health worker questionnaire

Introduction

My name is _____I will be asking you a series of questions on MCHNP implementation in the Eastern Region. The set of questions will focus on MCHNP governance as well as community-based activities on maternal, child health and nutrition being implemented in your facility. I will also find out about your thoughts on barriers in the implementation of the MCHNP project.

Section A: To be administered at all levels				
No.	**Question**	**Response**	**If**	**Skip**
1	Level	Regional Health Directorate. E/R....1 District Health Directorate……..2 Facility……3		
2	Name of Site	_____		
	Governance			
3	Availability of MCHNP Coordinators	Yes…1 No…0	No	End Interview
4	Designation of MCHNP Coordinators			
5	Can you share your thoughts on what MCHNP seeks to achieve?			
6	Availability of current MCHNP plan and budget	Available…1 Not Available…2		

7	Availability of minutes on MCHNP meetings held in the 1st quarter of 2019	Available…1 Not Available…		
8	What is the mode of release of MCHNP funds to you?			
9	What is the mode of accounting for your MCHNP funds?			
10.	Has there been any monitoring or supervisory activity on MCHNP to your facility?	Yes…1 No…0	No	End section A
11	When was the last monitoring visit to your facility?	In the current month…1 In the Immediate past month…2 Last quarter…3 Last year…4 Cannot remember…5		
Section B: To be administered at the facility level.				
	MCHNP Processes	Were your programme activities put in place as planned in the 1st quarter of 2019? Yes…1 No…0	Target	Actual
	Maternal health			
12	Registration of Pregnant women in the community			
13	Community referrals of pregnant women to health facility			
14	Counseling of adolescents on FP			
15	Family planning acceptors			
16	Stock of FP commodities			
	Child Health			
17	Distribution of ITNs among under 5 years			
18	Community health promotion activity on under5 bed net use			
19	Community education on childhood illnesses			
20	Management of childhood illnesses			
	Nutrition			
21.	Community based education on Nutrition			

22	Counseling on Infant and Young Child feeding			
23	Community based growth promotion sessions			
24	Community outreach visits			
Section C: To be administered at all levels. **Implementation Barriers**				
25	In your experience with MCHNP implementation, can you share some thoughts on challenges you are facing with the project?			
26.	**General Comments**			

Appendix 2: Ethical Clearance letter

Letter should be quoted

MyRef. GHS/RDD/ERC/Admin/App 19/266
Your Ref. No.

P. O. Box MD 190
Accra
GPS Address: GA-050-3303
Tel: +233-302-681109
Fax + 233-302-685424
Email: ghserc@gmail.com
5th July, 2019

Solomon Amponsah Boamah
University of Ghana
School of Public Health
Legon,

The Ghana Health Service Ethics Review Committee has reviewed and given approval for the implementation of your Study Protocol.

GHS-ERC Number	**GHS-ERC 035/06/19**
Project Title	Process Evaluation of Maternal, Child Health and Nutrition Improvement Project (MCHNP) in the Eastern Region, Ghana
Approval Date	5th July, 2019
Expiry Date	4th July, 2020
GHS-ERC Decision	**Approved**

This approval requires the following from the Principal Investigator

- Submission of yearly progress report of the study to the Ethics Review Committee (ERC)
- Renewal of ethical approval if the study lasts for more than 12 months,
- Reporting of all serious adverse events related to this study to the ERC within three days verbally and seven days in writing.
- Submission of a final report after completion of the study
- Informing ERC if study cannot be implemented or is discontinued and reasons why
- Informing the ERC and your sponsor (where applicable) before any publication of the research findings.
- Please note that any modification of the study without ERC approval of the amendment is invalid.

The ERC may observe or cause to be observed procedures and records of the study during and after implementation.

Kindly quote the protocol identification number in all future correspondence in relation to this approved protocol

SIGNED.....
DR. CYNTHIA BANNERMAN
(GHS-ERC CHAIRPERSON)

Cc: The Director, Research & Development Division, Ghana Health Service, Accra